Wisconsin
Department of Commerce

ENVIRONMENTAL & REGULATORY SERVICES DIVISION
Bureau of Storage Tank Regulation
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**Program Letter**
Bureau of Storage Tank Regulation

# Aircraft Fueling From AST

Over the past several months the bureau has addressed significantly more questions and issues relating to the fueling of aircraft from aboveground storage tanks. The issues of aircraft fueling have been challenging from a regulatory standpoint because:

- The existing ILHR 10 language does not adopt NFPA 407 – Aircraft Fuel Servicing.
- ILHR 10 does not adequately address the issues of collision protection and point of fueling for aircraft.
- NFPA 407 does not allow above ground fuel storage in service areas. A fuel dispensing area is a service area.
- In 1992 the Department began to allow aircraft fueling from ASTs because the existing code language and risks based upon current technology did not warrant a prohibition.

The bureau has assessed the intent of the dispenser setback and collision protection issues and implemented a policy that will provide reasonable continuity and safety elements.

Typically, an automobile will be adjacent to the dispenser when fuel transfer takes place. The ILHR 10.415(10) rule requires that the dispenser be setback 30 feet from the tank in order to provide an element of isolation or separation between the fuel dispensing function and the storage tank. The drive-up and approach practice and the design of aircraft obviously require a different configuration to the fueling site. Typical installations for aircraft fueling have had the dispenser located at the tank, with the fueling area setback from the dispenser. The bureau has been asked to develop some guidelines to maintain continuity in understanding and expectations. The result being implementation of a policy that the point of fuel transfer at the aircraft shall be at least 30 feet from the dispenser.

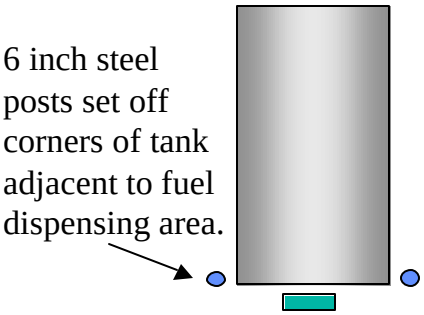
Likewise, the code does not specify technical requirements for aircraft collision protection. The Department initially advocated a somewhat discretionary policy that collision protection had to be adequate for the type of vehicle using the fueling site. This facilitated various concepts regarding height, spacing and distance of collision protection. The Bureau has implemented the policy that aircraft collision protection must maintain 1,000 pounds per linear foot at 18 inches above grade. The protection must be located at least 24 inches from the *tank wall* and extend at least 12 inches above the top of the *tank*. The collision protection must be placed to provide protection from wing impact adjacent to approach or turning patterns.

Existing AST aircraft fuel dispensing systems may not comply with the policy implementation presented in this program letter. Inspectors should not attempt to enforce this policy on systems that were installed under past approvals that did not specify the policy that this program letter communicates.

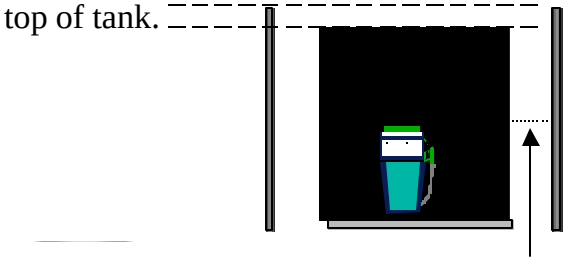
The following schematic depicts the aircraft fueling policy.

# Collision Protection For Aircraft Fueling AST

## Collision Protection View From Top




## Collision Protection View From Front




## Fueling Area Marking View From Top